

Notice of Allowability

Application No.

10/688,825

Examiner

Allen C. Ho

Applicant(s)

HEIDRICH, GUNTER

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 25 May 2005.
2. ☒ The allowed claim(s) is/are 1 and 3-9.
3. ☒ The drawings filed on 17 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 1 and 3-9 are allowed.
2. The following is an examiner's statement of reasons for allowance:

With regard to claims 1 and 3-9, although the prior art discloses an x-ray tube comprising a metallic vacuum housing containing an evacuated volume, the metallic vacuum housing having a surface facing and defining a part of the evacuated volume, and an anode and a cathode disposed in the evacuated volume, it fails to teach or fairly suggest the surface having a plurality of notches therein that relieves thermal stress in the surface caused by electrons back-scattered onto the surface from the electron beam striking the anode as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

3. Applicant's arguments filed 25 May 2005 with respect to claims 1 and 3-9 have been fully considered and are persuasive. The rejections of claims 1 and 3-9 have been withdrawn.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- (1) Dumitrescu *et al.* (U. S. Patent No. 5,224,143) disclosed an x-ray tube comprising a cathode, the cathode comprises two filaments, each filament is disposed in a corresponding notch.
- (2) Lounsberry *et al.* (U. S. Patent No. 4,943,989) disclosed an x-ray tube comprising a vacuum housing, the inner surface of the housing comprises a plurality of notches (53).
- (3) Parker (U. S. Statutory Invention Registration NO. H312) disclosed an x-ray tube comprising a metallic vacuum housing, the inner surface of the housing comprises a plurality of notches (28).
- (4) Gralenski *et al.* (U. S. Patent No. 3,892,989) disclosed an x-ray tube comprising a vacuum housing, the inner surface of the housing comprises a plurality of notches (114).
- (5) Seki *et al.* (U. S. Patent No. 3,591,821) disclosed an x-ray tube comprising a cathode, the cathode comprises a plurality of filaments, each filament is disposed in a corresponding notch (29).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (571) 272-2491. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached at (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen C. Ho
Primary Examiner
Art Unit 2882

12 August 2005